Keywords: Proximal femoral fractures; Cancellation; Length of stay

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5B.7

Irreducible subtrochanteric fractures treated by open reduction and internal fixation with cables and proximal femoral nailing

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Introduction: Subtrochanteric fractures represent 10% of proximal femoral fractures. Treatment of these fractures is technically demanding and has much higher rate of complications. Theoretically, complications can be minimised by accurate reduction and internal fixation. However, there are concerns regarding effects of open reduction on fracture healing. We assessed the fracture union and complications following open reduction and internal fixation (ORIF) of irreducible subtrochanteric fractures with cables and the long proximal femoral nail (PFN).
Methods: Thirty-nine patients who underwent ORIF between 2001 and 2006 were reviewed. We determined the mechanism of injury, associated injuries, fracture pattern, quality of reduction, technical difficulties and fracture union. ASA grading and other postoperative complications were recorded.
Results: Thirty-nine patients (17 men and 22 women) with a mean age of 73 (range 21–93) were included. Associated injuries were noted in 12 (31%) patients. There were 17 subtrochanteric, 17 intertrochanteric with subtrochanteric extension, and 5 reverse oblique fractures. Open reduction was performed when closed reduction failed or when medial cortex was comminuted. Technical difficulties were encountered in eight patients. Twenty-seven fractures united between 3 and 12 months. Sixteen patients died within one year (within 3 months:6 patients, between 3 and 12 months:10 patients) because of complications not related to the fracture. Four patients were transferred to other hospitals for rehabilitation. All survived patients recovered expected degree of mobility. Two patients required revision (one non-union and one proximal screw migration). There was no infection.
Conclusions: Treatment of subtrochanteric fractures is technically demanding. Factors including co-morbidities, pre-injury mobility, fracture configuration and bone quality need consideration. It is important to obtain a satisfactory reduction in these fractures to facilitate early mobilisation and fracture union. Treatment of irreducible subtrochanteric fractures with the long PFN and Dall Miles cables produced satisfactory fracture union.
Keywords: Irreducible subtrochanteric fractures; Open reduction; Proximal femoral nailing; Dall Miles cables

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5B.8

Periprosthetic fractures of the femur after total hip arthroplasty

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The fractures of the femur are considered amongst the most complicated to resolve after an operation of total hip arthroplasty (THA).

Currently, in the USA, there are approximately 200,000 THA implanted a year and this number is increasing constantly. This increase is justified by the continual evolution of the material and operating techniques available, which have enabled orthopaedic specialists to operate increasingly older patients (with increasingly deteriorated bone quality) and also increasingly younger patients with the possibility of giving them back the quality of life they had before trauma, a condition which puts these patients at risk of high energy traumas which are able to provoke a fracture of the periprosthetic.

The surgeon's objectives must be represented by: the alignment of the fracture, early union and functional rehabilitation of the condition before injury. A pre-requisite for all this will be the certainty to be able to obtain the survival and stability of the THA implant after the treatment of the fracture.

The available options for curing can be: the conservative treatment with immobilization, or the surgical treatment of osteosynthesis and/or of the prosthetic substitution.

Nowadays the conservative treatment is reserved for inoperable patients or Vancouver Type A composed fractures.

Regarding the surgical treatment, it is unanimously agreed that internal osteosynthesis be considered useful when there is a good bone stock and a fixed prosthesis.[1–3] The prosthesis substitution with a long-stem is indicated in cases where periprosthetic comminutions are present (in this case it is advisable to use a bone graft) and, finally, in the cases where there is a severe bone defect subsequent to a previous mobilization of the prosthesis.

However being a rare complication, it is hard to obtain homogenous data in order to trace treatment guidelines for these types of fractures, especially because the number of patients presented in various case studies is not enough.[4–6]

The aim is therefore to verify, on the base of the case studies available, the long-term results for surgical treatment of fractures after THA.
Keywords: Periprosthetic fractures; Total hip arthroplasty; Osteosynthesis; Long-stem

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6A.1

6A: Polytrauma

The epidemiology of major injury in the UK

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Although serious injury is a public health priority in the UK, there appears to be a lack of information available on population-based rates of serious injury as defined by a recognized severity of injury taxonomy.

The aim of this study is to generate epidemiological rates of major trauma in well defined populations using a large national